

## CLAIMS

What is claimed is:

1. Wireless apparatus for communicating with a remote location through a wireless network, comprising:

first and second units each having a low-power transceiver for wireless communication over a low power radio link;

said first unit having a second transceiver for wireless communication with said remote location, said second transceiver having a transmission range greater than said low-power transceiver;

said second unit being smaller than said first unit and being of a size so as to be worn or carried on the body of a user;

said second unit having a key pad for inserting calling data;

a display in said second unit displaying calling data;

said second unit having a microphone for converting speech into electrical signals and a speaker for converting electrical signals into speech and a controller for controlling operations of said display, speaker and microphone and coupling electrical signals to the low-power transceiver in said second unit for transmission to said first unit through said low-power radio link.

2. The apparatus of claim 1 wherein said first unit comprises a controller for transferring signals received by the low-power transceiver in said first unit to said second transceiver for transmission to said remote location.

3. The apparatus of claim 1 wherein the controller in said first unit further includes means for transferring signals from said second transceiver to the low-power transceiver in said first unit for transmission over said low-power radio link to said second unit.

4. The apparatus of claim 1 wherein said low-power transceivers both operate at a specific carrier frequency to prevent receipt of a transmission from a transmitter other than the low-power transceivers in said first and second units.

5. The apparatus of claim 1 wherein the transmission range of said low-power transceiver is less than 100 feet.

6. The apparatus of claim 5 wherein the transmission range is less than 20 feet.

7. The apparatus according to claim 1 wherein the first and second units are powered by portable batteries, a battery source in said second unit being smaller and lower powered than the battery source in said first unit to reduce the overall size of said second unit.

8. The apparatus according to claim 1 wherein said low powered transceivers encode their transmissions to prevent interception by other transceivers.

9. The apparatus according to claim 1 wherein said second transceiver is a digital wireless transceiver.

10. The apparatus according to claim 1 wherein a key pad and display are eliminated from said first unit to reduce electronic components employed in said first unit.

11. The apparatus according to claim 1 wherein said microphone and speaker are combined into one unit.

12. The apparatus according to claim 1 wherein a stylus is provided for operating said key pad.

13. The apparatus of claim 1 wherein the second unit is worn on a wrist of the user.

14. The apparatus of claim 1 wherein the second unit is affixed to an article of clothing of the user.

15. The apparatus of claim 1 wherein the second unit is of a size to enable it to be placed with a pocket of an article of clothing of the user.

16. The apparatus of claim 1 wherein the first unit is maintained at a greater distance from the user's head than said second unit to reduce possible harm due to radiation emitted by said first unit.